

What is claimed is:

1. A pneumatic motor driving valve of a screw nail gun being assembled to an opening of an air inlet valve of an air inlet channel of a pneumatic motor; the screw nail gun having a gun body; the gun body
5 having at least one cylinder capable of receiving high pressure air; and a driving rod installed in the cylinder; one end of the driving rod being connected to a piston; the piston being able to be actuated by the high pressure air to beat a screw nail to move linearly; another end of the driving rod being driven by the pneumatic motor to generate power to
10 rotate the screw nail; the driving valve comprising:

a downward pressing spring on an outer wall of the cylinder;

an annular control valve pivotally installed on an outer wall of the cylinder; the annular control valve pressing and located above the downward pressing spring; a valve disk protruding from the annular control
15 valve for controlling opening and closing of an opening of the air inlet valve;

a top of the annular control valve being communicated to an inner layer air chamber; when high pressure air is accumulated in the inner layer air chamber; the annular control valve being pushed to press the downward
20 pressing spring so as to open the opening of air inlet valve; and thus the high pressure air being loaded into the air inlet channel for driving the pneumatic motor to rotate; and

a bottom of the annular control valve having a lower air chamber for receiving exhausting high pressure air from the cylinder so as to push the
25 annular control valve to move upwards with the downward pressing spring to close the opening of air inlet valve; thus the pneumatic motor stops.

2. The pneumatic motor driving valve of a screw nail gun as claimed in claim 1, wherein an outer wall of the cylinder has an air resisting ring for resisting against the downward pressing spring; the air resisting ring and a
30 bottom of the annular control valve is formed with a lower air chamber.

3. The pneumatic motor driving valve of a screw nail gun as claimed in claim 1, wherein an air guiding hole is formed on the air resisting ring and is connected to an air guiding tube; the air guiding tube is connected to an exhausting hole near a lower edge of the cylinder.

5 4. The pneumatic motor driving valve of a screw nail gun as claimed in claim 1, wherein an air flow hole is formed near an upper edge of the cylinder; and a periphery of the air flow hole is covered by an air mask; thereby a top of the annular control valve being communicated to an inner layer air chamber.

10 5. The pneumatic motor driving valve of a screw nail gun as claimed in claim 1, wherein the inner layer air chamber is located above the cylinder; and the inner layer air chamber has a spacing ring; a periphery of the spacing ring has a plurality of via holes for guiding the high pressure air in the inner layer air chamber to an cylinder chamber of the cylinder.

15 6. The pneumatic motor driving valve of a screw nail gun as claimed in claim 5, wherein the via holes on the spacing ring serves to guide the high pressure air in the inner layer air chamber to press the annular control valve.

20 7. The pneumatic motor driving valve of a screw nail gun as claimed in claim 1, wherein a top of the inner layer air chamber is installed with a main air piston and a main air valve communicated to the main air piston.

25 8. The pneumatic motor driving valve of a screw nail gun as claimed in claim 1, wherein a top layer air chamber is formed around the main air valve and the main air piston; the top layer air chamber is communicated to an air supply chamber of a handle of the gun body so that high pressure air is supplied to the top layer air chamber.

30 9. The pneumatic motor driving valve of a screw nail gun as claimed in claim 7, wherein a bottom of the main air valve has a middle layer air chamber; and the main air valve presses a main air compressing spring; a bottom of the middle layer air chamber is a trigger air guiding hole which is communicated to the trigger valve.

10. The pneumatic motor driving valve of a screw nail gun as claimed in claim 7, wherein a top of the main air compressing spring has an upper valve opening, and a bottom thereof has a lower valve opening.

5 11. The pneumatic motor driving valve of a screw nail gun as claimed in claim 10, wherein when the upper valve opening is opened, high pressure air in the top layer air chamber flows into the inner layer air chamber continuously to push the annular control valve to open and thus to drive the pneumatic motor to rotate.

10 12. The pneumatic motor driving valve of a screw nail gun as claimed in claim 10, wherein when the lower valve opening is opened, the upper valve opening is closed so that the high pressure air in the inner layer air chamber drains out to push the annular control valve to close the opening of air inlet valve and the pneumatic motor stops to operation.

15 13. The pneumatic motor driving valve of a screw nail gun as claimed in claim 7, wherein a middle section of the main air valve has a plurality of exhausting holes; thereby the high pressure air in the inner layer air chamber exhausts from the via holes and the exhausting tubes on the gun body to outside.

20 14. The pneumatic motor driving valve of a screw nail gun as claimed in claim 1, wherein near a lower edge of the cylinder has a plurality of vent holes; an outer side of the vent holes is installed with a tube connector; the tube connector is connected to one end of an air guiding tube; another end of the tube connector is connected to an air resisting ring; an air guiding hole is formed on the air resisting ring for
25 connecting to the vent hole and the lower air chamber through the air guiding tube so that the high pressure air in the cylinder drains out to the lower air chamber.